IN THE CLAIMS:

Please amend the claims as follows:

1. (Currently amended) An asymmetric reaction catalyst obtained by mixing a pentavalent niobium compound and a triol or tetraol having an optically active binapthol structure of R or S configuration, wherein the asymmetric reaction catalyst can catalyze an asymmetric reaction selected from the group consisting of an asymmetric Mannich reaction, an epoxide asymmetric ring opening reaction, an asymmetric allylation reaction, an asymmetric cyanation reaction and an asymmetric alkylation reaction.

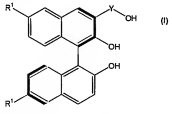
2. (Original) An asymmetric reaction catalyst according to claim 1, wherein the niobium compound is represented by the following formula:

NbX_5

(wherein, X is an alkoxide or a halogen atom).

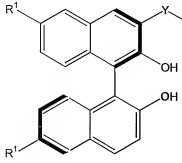
3-13. (Canceled)

14. (Currently amended) An asymmetric reaction catalyst according to claim 1, wherein the triol is represented by the following formula (I):



[[(]]wherein[[,]] Y represents a divalent hydrocarbon group and R^1 represents a hydrogen atom, a halogen atom, a perfluoroalkyl group having at most four carbons, or an alkyl group or alkoxy group having at most 4 carbons[[)]].

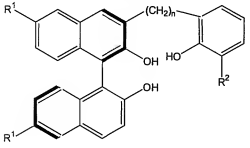
15. (Currently amended) An asymmetric reaction catalyst according to claim 2, wherein the triol is represented by the following formula (I):



(I)

[[(]]wherein[[,]] Y represents a divalent hydrocarbon group and R^1 represents a hydrogen atom, a halogen atom, a perfluoroalkyl group having at most four carbons, or an alkyl group or alkoxy group having at most 4 carbons[[)]].

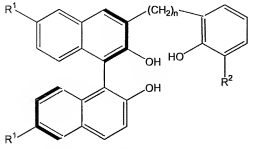
16. (Currently amended) An asymmetric reaction catalyst according to claim 1, wherein the triol is represented by the following formula (II):



(II)

[[(]]wherein[[,]] R^1 represents a hydrogen atom, a halogen atom, a perfluoroalkyl group having at most 4 carbons, or an alkyl group or an alkoxy group having at most four carbons; R^2 represents a hydrogen atom or a hydrocarbon group having 1 to 10 carbons; and n is an integer from 0 to 2[[)]].

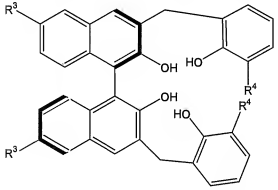
17. (Currently amended) An asymmetric reaction catalyst according to claim 2, wherein the triol is represented by the following formula (II):



(II)

[[(]]wherein[[,]] R^1 represents a hydrogen atom, a halogen atom, a perfluoroalkyl group having at most 4 carbons, or an alkyl group or an alkoxy group having at most four carbons; R^2 represents a hydrogen atom or a hydrocarbon group having 1 to 10 carbons; and n is an integer from 0 to 2[[)]].

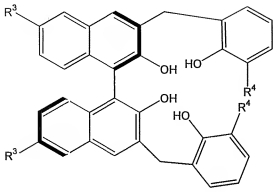
18. (Withdrawn) An asymmetric reaction catalyst according to claim 1, wherein the tetraol is represented by the following formula (III):



(III)

[[(]]wherein[[,]] R^3 represents a hydrogen atom, a halogen atom, a perfluoroalkyl group having at most 4 carbons, or an alkyl group or alkoxy group having at most 4 carbons and R^4 represents a hydrogen atom or a hydrocarbon group having 1 to 10 carbons[[)]].

19. (Withdrawn) An asymmetric reaction catalyst according to claim 2, wherein the tetraol is represented by the following formula (III):



(III)

[[()]wherein[[,]] R^3 represents a hydrogen atom, a halogen atom, a perfluoroalkyl group having at most 4 carbons, or an alkyl group or alkoxy group having at most 4 carbons and R^4 represents a hydrogen atom or a hydrocarbon group having 1 to 10 carbons[[)]].

20. (Previously presented) A method for preparing an optically active compound, wherein a reaction substrate represented by R^5R^6C=N-Z (wherein R^5 and R^6, not being the same, are selected from the group consisting of a hydrogen atom, a hydrocarbon group, an alkoxycarbonyl group, and a hydrocarbon group having a functional group and Z represents an aryl group or an acylamino group) and a nucleophilic agent are reacted by nucleophilic addition using an asymmetric reaction catalyst according to claim 1.

21. (Previously presented) A method for preparing an optically active compound, wherein a reaction substrate represented by R^5R^6C=N-Z (wherein R^5 and R^6, not being the same, are selected from the group consisting of a hydrogen atom, a hydrocarbon group, an alkoxycarbonyl group, and a hydrocarbon group having a functional group and Z represents an aryl group or an acylamino group) and a nucleophilic agent are reacted by nucleophilic addition using an asymmetric reaction catalyst according to claim 2.

22. (Previously presented) A method for preparing an optically active compound, wherein a reaction substrate represented by R^5R^6C=N-Z (wherein R^5 and R^6, not being the same, are selected from the group consisting of a hydrogen atom, a hydrocarbon group, an alkoxycarbonyl group, and a hydrocarbon group having a

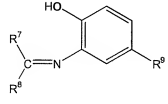
functional group and Z represents an aryl group or an acylamino group) and a nucleophilic agent are reacted by nucleophilic addition using an asymmetric reaction catalyst according to claim 14.

23. (Previously presented) A method for preparing an optically active compound, wherein a reaction substrate represented by $R^5R^6C=N-Z$ (wherein R^5 and R^6, not being the same, are selected from the group consisting of a hydrogen atom, a hydrocarbon group, an alkoxycarbonyl group, and a hydrocarbon group having a functional group and Z represents an aryl group or an acylamino group) and a nucleophilic agent are reacted by nucleophilic addition using an asymmetric reaction catalyst according to claim 15.

24. (Previously presented) A method for preparing an optically active compound, wherein a reaction substrate represented by $R^5R^6C=N-Z$ (wherein R^5 and R^6, not being the same, are selected from the group consisting of a hydrogen atom, a hydrocarbon group, an alkoxycarbonyl group, and a hydrocarbon group having a functional group and Z represents an aryl group or an acylamino group) and a nucleophilic agent are reacted by nucleophilic addition using an asymmetric reaction catalyst according to claim 16.

25. (Withdrawn) A method for preparing an optically active compound according to claim 20, wherein the above-mentioned reaction substrate is an imine represented by the following formula (IV):

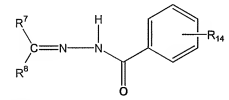
(IV)



[[()]wherein[[,]] R^7 and R^8, not being the same, are selected from the group consisting of a hydrogen atom, a hydrocarbon group, and a hydrocarbon group having a functional group and R^9 represents a hydrogen atom or a trifluoromethyl group[[)]].

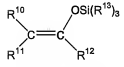
26. (Previously presented) A method for preparing an optically active compound according to claim 20, wherein the above-mentioned reaction substrate is a benzoylhydrazone represented by the following formula (V):

(V)



[[(]]wherein[[,]] R^7 and R^8, not being the same, are selected from the group consisting of a hydrogen atom, a hydrocarbon group, and a hydrocarbon group having a functional group and R^{14} represents a hydrogen atom or a substituent having an electron-withdrawing property[[)]].

27. (Withdrawn) A method for preparing an optically active compound according to claim 20, wherein the above-mentioned nucleophilic agent is a silicon enolate represented by the following formula (VI):



(VI)

[[(]]wherein R^{10} and R^{11} are each independently one selected from the group consisting of a hydrogen atom, an aliphatic hydrocarbon group, an aromatic hydrocarbon group, an alkyloxy group, an aryloxy group, and an silyloxy group; R^{12} is one selected from the group consisting of a hydrogen atom, an aliphatic hydrocarbon group, an alkyloxy group, an aryloxy group, an arylthio group, and a alkylthio group; and each R^{13}, being the same or different, represents a hydrocarbon group[[)]].

28. (Withdrawn) A method for preparing an optically active compound according to claim 20, wherein an imidazole derivative is added to the reaction system.

29. (Previously presented) A method for preparing an optically active compound according to claim 20, wherein a synthetic crystalline zeolite is added to the reaction system.

30. (Previously presented) A method for preparing a optically active compound wherein a reaction substrate and a nucleophilic agent are reacted by nucleophilic addition using an asymmetric reaction catalyst according to claim 1.

31. (Withdrawn) A method for preparing an optically active compound according to claim 30, wherein the reaction substrate is an epoxide, the nucleophilic agent is a nitrogen compound, and the optically active compound is a nitrogen-containing compound.